

PROGRAMMING METHODOLOGY AND ARCHITECTURE FOR AN ANALOG PROGRAMMABLE SYSTEM ON A CHIP

ABSTRACT OF THE INVENTION

5 A method of programming a programmable analog device that
introduces on a single chip a set of tailored analog blocks and elements that
can be configured and reconfigured in different ways to implement a variety of
different analog functions. The analog blocks can be electrically coupled to
each other in different combinations to perform different analog functions. Each
10 analog block includes analog elements that have changeable characteristics
that can be specified according to the function to be performed. Configuration
registers define the type of function to be performed, the way in which the
analog blocks are to be coupled, the inputs and outputs of the analog blocks,
and the characteristics of the analog elements. The configuration registers can
15 be dynamically programmed. Thus, the device can be used to realize a large
number of different analog functions and applications.